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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,235	03/24/2006	Marc Limpens	0512-1311	1474
465 7590 12/09/2009 YOUNG & THOMPSON 209 Madison Street Suite 500 Alexandria, VA 22314				
EXAMINER WOOD, ELLEN S				
ART UNIT		PAPER NUMBER		
1794				
NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DocketingDept@young-thompson.com

Office Action Summary

Application No.

10/560,235

Applicant(s)

LIMPENS, MARC

Examiner

ELLEN S. WOOD

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 21-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 21-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-15 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartel et al. (US 4,846,917, hereinafter "Hartel").

In regards to claims 1 and 21-24, according to the applicant a fabric jacket comprises at least one tubular zone and is constituted by two sheets of fabric which are covered with a coating on one or two faces. The coating is constituted by at least one layer of rubber (pg. 2 para 5). Hartel discloses a method for producing an inflatable hollow body from a double cloth, in which a layer of natural rubber is applied to the upper and lower piles of the double cloth and the edges of the double cloth (textile fabric) are joined with angle braces (col. 1 lines 9-14 and fig. 1). There is a tube that is formed from two superimposed sheets (fig. 2). The upper and lower piles 2 and 3 are coated with gas-tight cover layer 5 and 6 in order to be made air-tight (col. 2 lines 48-50 and figs. 1-2). Angle braces 7 and 8 (folded strips) are made of coated fabric (col. 2 lines 65-67 and figs. 1-2). The covering layers of rubber may be reinforced with a woven fabric (col. 1 lines 53-56). In weaving, a woven fabric is formed from warp threads and weft threads. The warp threads are the lengthwise threads and the weft threads are the perpendicular threads that are woven through the warp threads. All of

the contacting surfaces between the double cloth 1 and the piles 5 and 6, as well as between these plies themselves and the angle braces 7 and 8 are suitably painted beforehand with an adhesion promoter (col. 3 lines 1-4 and figs. 1-2). The two piles or are kept apart by yarns or threads extending at right angles to the plies (col. 2 lines 40-45 and figs. 1 and 2). This is considered an anti-adhesive agent because it keeps the plies separated from one another in specified zones. All of the surfaces and edges to be joined are then briefly pre-pressed with a pressing roller (col. 3 lines 4-5). The double cloth is then inflated and the angle braces firmly contacts the point at which the lower plies and the upper plies meet, contributing to effective secure sealing (col. 3 lines 33-40 and figs. 2).

In regards to claim 2, Hartel discloses that lower plies 2 and 3 are coated with gas-tight cover layers 5 and 6 (col. 2 lines 48-51 and figs. 1-2).

In regards to claim 3, Hartel discloses that the lower plies 2 and 3 may optionally be coated on both sides with natural rubber (col. 2 lines 56-60 and figs. 1-2).

In regards to claim 4, Hartel discloses that the coated layers of the plies and the angle braces are those of (col. 2 lines 48-53).

In regards to claim 6, Hartel discloses that all the surfaces and edges to be joined are then briefly pre-pressed (col. 3 lines 4-5), which would include the angle braces. The hollow body is introduced into a vulcanization chamber (col. 3 lines 26-28), which would be considered a heat source.

In regards to claim 7, Hartel discloses that the angle braces 7 and 8 are suitably painted beforehand with an adhesion promoter (col. 3 lines 1-4 and figs. 1-2). Thus,

when the angle braces are pressed together they would be adhesively-bonded to the plies.

In regards to claims 10-11, Hartel discloses the covering layers of rubber may be reinforced with a woven fabric (col. 1 lines 53-56). In weaving, a woven fabric is formed from warp threads and weft threads. The warp threads are the lengthwise threads and the weft threads are the perpendicular threads that are woven through the warp threads.

In regards to claim 12, Hartel discloses an inflated tube that is rectilinear (fig. 2).

In regards to claim 15, Hartel discloses that the hollow bodies are suited for the bottoms or side wall of inflatable boats or for inflatable mattresses (col. 2 lines 46-48). It would be obvious to form the hollow body in a torus shape, because the required shape of the hollow body depends of the use of the hollow body.

Hartel is silent with regards to the formation of the folded strips and the use of a plastics material for the cover layer.

In regards to the formation of the folded strips, Hartel discloses angle braces 7 and 8 which are made from coated fabric that may be woven. It would be obvious to form the angle braces with an identical manner in order to ensure the proper mechanical properties for both sides of the hollow body. In the same manner, the angle braces are put in place on the sides (col. 2 lines 65-67 and figs. 1-2). The double cloth is then inflated and the angle braces firmly contacts the point at which the lower plies and the upper plies meet, contributing to effective secure sealing (col. 3 lines 33-40 and figs. 2). It would be obvious to one of ordinary skill in the art that the angle braces would be formed from folded strips that were previously cut to have a specific width,

length and proper inclination of the warp and weft threads from a strip of coated fabric, otherwise the angle braces would not effectively seal when the body is inflated.

It would be obvious to one of ordinary skill in the art to use a plastics material for the cover layer instead of a rubber layer, because it is known that plastics materials provide barrier protection which would be an effective way to ensure a gas-tight seal.

Response to Arguments

3. Applicant's arguments filed 08/18/2009 have been fully considered but they are not persuasive.
4. The objection of claims 1-15 has been withdrawn due to Applicant's amendments.
5. The 35 U.S.C. 112, second paragraph, rejection has been withdrawn due to Applicant's amendments.
6. The applicant argues that Hartel et al. does not disclose or infer a method for continuously producing a coated fabric jacket. That is, for example, there is no teaching or in inference in Hartel et al. of forming a structure containing at least one or more tubes, such as is shown in Figure 1 of the application.

In response, Hartel discloses a method for producing an inflatable hollow body from a double cloth, in which a layer of natural rubber is applied to the upper and lower piles of the double cloth and the edges of the double cloth (textile fabric) are joined with angle braces (col. 1 lines 9-14 and fig. 1). There is a tube that is formed from two

superimposed sheets (fig. 2). Thus, at least one tube is formed from the continuous production of forming a coated fabric jacket.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **ELLEN S. WOOD** whose telephone number is (571)270-3450. The examiner can normally be reached on M-F 730-5 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571)272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rena L. Dye/
Supervisory Patent Examiner, Art Unit 1794